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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,394	07/19/2001	Gang Huang	HUANG 11-I-10	9912

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EXAMINER

PATHAK, SUDHANSHU C

ART UNIT PAPER NUMBER

2611 -

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

09/909,394

Applicant(s)

HUANG ET AL.

Examiner

Sudhanshu C. Pathak

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED October 10th, 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1-21.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See attached "Response to Arguments".
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

Response to Arguments

1. In response to arguments that the cited references (AAPA in view of Turner et al. (4,562,425) in further view of Aleyunas et al. (6,553,087)) does not teach or suggest recognizing a candidate symbol as being a zero- amplitude symbol when the candidate symbol is within a zone having a boundary formed by a set of points that are equidistant between an origin of a constellation and a nearest one of four symbols proximate thereto as recited in independent Claims 1 and 8, this is incorrect.

The AAPA reference discloses a communications system comprising a zero-amplitude symbol to constitute an end-of-file symbol according a HomePNA standard using a QAM technique (as is described in the Final Rejection Office Action dated August 15th, 2006). The AAPA reference is interpreted to disclose a communication system implementing a HomePNA standard further comprising QAM modulation technique for transmitting and receiving data wherein the zero-amplitude symbol constitutes an end-of-file symbol. Therefore, it is inherent in a receiver implementing a HomePNA standard wherein the zero amplitude symbol constitutes an end-of-file symbol to comprise a zero amplitude interpreter that recognizes a candidate symbol to be a zero-amplitude symbol. However, the AAPA does not explicitly disclose a QAM constellation comprising a zero amplitude symbol and further the interpreter, that recognizes said candidate symbol as being a zero-amplitude symbol when said candidate symbol is within a zone having boundary

formed by a set of points that are equidistant between an origin of the constellation of symbols and a nearest one of four proximate.

The Turner reference (4,562,425) discloses a system of transmitting data implementing QAM modulation technique wherein the QAM constellation comprises a zero amplitude symbol (as is described in the Final Rejection Office Action dated August 15th, 2006). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that Turner teaches implementing a QAM signal (constellation) comprising a zero-amplitude symbol at the origin of the constellation, and this is implemented in the system as described in the AAPA so as to represent a specified information (in a standard) according to the HomePNA standard as described in the AAPA. However, the AAPA in view of Turner does not disclose recognizing said candidate symbol as being a zero-amplitude symbol when said candidate symbol is within a zone having boundary formed by a set of points that are equidistant between an origin of the constellation of symbols and a nearest one of four proximate. Furthermore, it is known to one of ordinary skill in the art at the time of the invention that a 16-QAM constellation is arranged on a Cartesian plane.

The Alelyunas reference discloses a receiver comprising a slicer, that chooses from a set of possible set valid receivable levels which most closely matches the current received signal level (as is described in the Final Rejection Office Action dated August 15th, 2006) i.e. the received symbol is mapped on an ideal constellation wherein the ideal symbol nearest to the received symbol is selected as the received signal. Furthermore, it is notoriously known to one of ordinary skill in

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the art that a slicer comprising a reference constellation comprises a zone i.e.
decision zone (regions), having boundary formed by a set of points that are
equidistant from the reference symbol, so as to determine the candidate symbol, as
is reinforced in the Messerschmitt & Lee reference. Therefore, it would have been
obvious to one of ordinary skill in the art at the time of the invention that Alelyunas
teaches mapping the received signals on an known constellation in the slicer and
selecting the constellation point most close to the received signal level and further
converting the selected constellation point into a set of bits, this can be implemented
in the system as described in the AAPA in view of Turner so as to determine the
zero amplitude symbol and further this symbol is converted into a bits stream which
is interpreted as "end-of-file" or "end-of-subframe" in the HomePNA standard.



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